

**Alsagarat et al., Afr J Tradit Complement Altern Med., (2017) 14 (1): 1-9**

doi:10.21010/ajtcam.v14i1.1

**TRADITIONAL PRACTICES ADOPTED BY JORDANIAN MOTHERS WHEN CARING FOR THEIR INFANTS IN RURAL AREAS****Ahmad Yahya Al-Sagarat\* and Amani Al-Kharabsheh**

Mutah University, Mutah, Al-Karak, Jordan

**\*Corresponding Author E-mail:** [sagarat4@hotmail.com](mailto:sagarat4@hotmail.com)**Abstract**

**Background:** Traditional practices are commonly present within the Jordanian society, especially those concerned with infant's care. Some of these practices might be harmful and thus health professionals are required to substitute these practices with safe and healthy ones. The goal of this study is to determine the traditional practices adopted by Jordanian mothers when caring for their infants in rural areas.

**Materials and Methods:** A descriptive study design using qualitative method was utilized in this study. A Purposive sample of 30 mothers was recruited from four rural regions in outskirts of Amman the capital city of Jordan.

**Results:** Mothers had traditional infant's care practices pertinent to bathing of babies, including the salting, swaddling, care of the umbilical cord and jaundice.

**Conclusion:** Traditional practices are still common in Jordan; some of these behaviors can cause health risks. While health consequences of some of the traditional practices are still not clear, health professionals, especially nurses, are required to intervene by changing policies and education.

**Keywords:** Traditional practice, Infant's care, rural areas, Jordan.

**Introduction**

Traditional practices are usually derived from the relations with the environment and the attitude of early humans toward nature (Polat et al., 2015). These practices usually develop over time and by trial and error in most cases. Justified by their positive impact over use, traditional practices of mothers when caring for their infants are also influenced by the religious beliefs, their surrounding environment and practices of the older generation, who are in close contact with the mother (Aliefendioglu et al., 2009).

The cultural beliefs and practices of mother experienced on when caring for infants have been shown to vary among cultures. Capik and Capik (2014) stated that 64.6% swaddling practices, 54.54% practices applied for jaundice and 54.11% practices for shedding of the umbilical cord. In study conducted by Yalcin (2012) revealed that 58.9% salted their babies in order to prevent the sweat sticking, and nearly 66% swaddled in order to straighten their legs, while 55.3% covered their babies with yellow gauze to prevent Jaundice.

In India, Reshma and Sujatha (2014) reported that 95% of the mothers apply oil massaging for the baby before bathing, 53% of them provided home remedies for the baby, such as exposing babies to sunlight in case of Jaundice, 55% applied ashes, soot, powder, or dry cow dung on the umbilical cord. Another study in Zambia by Herlihy et al., (2013) found that cord applications included drying agents (e.g., charcoal, baby powder, dust), lubricating agents (e.g. cooking oil, used motor oil) and agents intended for protective and treatment purposes (e.g., breast milk, cow dung, chicken feces) were adopted by the majority of mothers.

Few studies found in Jordan related to traditional practices of mother in infant's care applied related to swaddling, salting, and other reported practices to avoid jaundice and the umbilical care. For instance, Abudahail (2014) investigated the cultural health practices in 13 mothers from four rural areas in the Northeast region of Jordan. Among the commonly found traditional practices, Abudahail (2014) reported infant's salting during the first week of infant's life. The beliefs about salting were acquired from the older generations of the informants' female relatives (Abuidhail, 2014). Reported reasons for adopting this practice included prevention of bad odors from sweating, protecting skin from different disorders during childhood, such as skin redness, infection and nappy rash, protecting skin from dryness during the life time, be polite when speaking later at life, and gaining respect from people (Abuidhail, 2014). The most common practice between the informants was buying sulpha transseptrine powder (antibiotic) to apply it over the stump without knowing that it was an antibiotic (Abuidhail, 2014). In rural Jordanian communities, wrapping and swaddling infants are culturally strongly acceptable as the common belief was that swaddling would strengthen and straighten the infant's limbs and body (Abuidhail, 2014).

According to khassawneh et al., (2008), cultural practices commonly found in different areas in Jordan include circumcision, which is mainly performed by ritual circumcisers and mainly for religious reasons. In addition, Jarrah and Bond (2007) conducted one of the rare studies centred on cultural issues of postnatal care. They explored postpartum beliefs among Jordanian women. Jarrah and Bond (2007) stated that 27.5% believed that attaching coin to umbilical cord is beneficial to prevent an umbilical hernia, and that 50% from the mothers believed that kofaleya (tightly secured wraps around the baby) do not harm the newborn, 50% considered that salting strengthen the muscle of the newborn.

Traditional infant's practices by mothers in Jordan, like other countries around the globe, are widely practiced. There are no legal forms to control such practices, even when they are harmful or their impact has not been established yet. The first step in the process of legalization and controlling such practices is to establish a database that explains these practices fully. This study has been conducted to explore these practices and set this database.

Based on the researchers' observation in a rural region at the outskirts of Amman, mothers often seek health advices to their infants from senior relatives. Those people usually reflect the cultural practices of the senior relatives as a mode of health seeking behavior, in preference to the health care services provided by health care organizations. These traditional practices depend on health beliefs and knowledge of mothers and are influenced by the knowledge of those relatives who are viewed by mothers as a trusted source of information. This influence usually interferes with the health practices that may harm the baby, including salting of infant and other traditional care of infants with jaundice, which may delay medical treatment.

The need for this study is paramount as health care services widely spread in Jordan making accessibility to advanced care and professional advice easily achieved compared with the past. This study explored traditional practices adopted by mothers of the rural areas at the outskirts of Amman city.

## **Materials and Methods**

This is a qualitative, cross sectional study, which utilized a non-experimental, descriptive-explorative design. Face-to-face interviewing was used to collect data from mothers. This method is deemed appropriate for use to collect valid, in-depth data that would promote better understanding of the investigated phenomenon and is appropriate for the paradigm of the study.

## **Setting and Sample**

Participants in the study were purposively selected because of the nature and aim of the research. A purposive sample of 30 mothers was recruited from four rural regions in Amman the capital city of Jordan. The researcher recruited informants from the community utilizing her knowledge of the women, who fitted into the inclusion criteria for the study and invited them to participate. Women then decided to conduct the study interview at their own convenience with regards to place and time. During the first visit, the researcher explained in full the research purpose and the data collection and analysis processes to all possible informants. Then the timing of the interview was decided and conducted as planned.

Inclusion criteria included mothers, who newly delivered a healthy baby via vaginal delivery or a surgery. All women had to have delivered a baby previously or had a baby whose age is equal or greater than a year. The infant has to be healthy with no complications during delivery and at the time of conducting the interview. The infant does not and did not have any infection from the day of delivery until the time of the interview.

Exclusion criteria included mothers, who had complicated cesarean section, complications during delivery, such as infections. In addition, mothers whose infants had encephalopathy, hernia, or any other health conditions that required medical interventions, were excluded from the study.

The researcher conducted the data collection and analysis afterward by herself; no data collectors were involved in this process. This step would ensure that internal validity of the collected data would be high (Creswell, 2009).

Recruitment of informants continued until the same themes started to be repeated and no new ideas as the researcher believed that saturation has been achieved.

## **Data Collection**

Semi-structured interviews were used to collect data from the informants. The length of each interview varied between 15 and 30 minutes. The length of each interview depended on the informant's willingness to give detailed or short answers, which was influenced by the informant's experience and personality. The interviews were conducted in the mothers homes.

## Data Analysis

Written transcripts were documented in verbatim to reflect what mothers exactly said. These transcripts were then from Arabic into English. Data were analyzed using Leininger's Phases of Ethnonursing Qualitative Data Analysis method (Leininger, 2006). This method of analysis includes four phases of data management and analysis. The first phase is designed to collect, describe, and document raw data as they were transcribed from the informants. In the second phase, descriptors and components should be identified and categorized. Thirdly, contextual analysis predominates; data are scrutinized to discover saturation of ideas and recurrent patterns of similar and different meanings. Finally, the fourth and last phase of data analysis includes synthesis and interpretation of the data where emerging themes are highlighted and similar themes are either merged or categorized together (Leininger, 2006).

## Ethical Approval

Prior to commencing data collection an ethics application to conduct this research was submitted to the Mutah University Human Research Ethics Committee. Permission was granted by the committee, enabling the study to be conducted.

Research ethical considerations including the nature and aims of the research, voluntary participation, the right to withdraw from participation, the protection of confidentiality and privacy of the informants, the use and publication of the research results, the storage of data, and benefits of research were explained in writing to candidates. This information was conveyed in the human ethics application form. It was also verbally reinforced before the conduct of the interview. Information was treated as confidential, and no identifying data were used. The researcher and her supervisor were the only ones with access to the research data, and the data will be destroyed in accordance with the rules and regulations of Mutah University.

## Results

### characteristics of the informants

There were 30 women, who participated in this study and finished the interview. Drop rate from the study interview was zero as no women withdrew or had an incomplete interview. The age groups of the mother's range between twenties and mid sixties with an average age of 38.77 years (SD=5.75). As illustrated in table 4.1, two third the informants lived in a nuclear family, and the majority had less than 6 children. All of the informants reported having an academic degree of at least high school, except for the women aged above 56 years. Only a few of them had an academic degree lower than secondary level. The majority of women did not work and reported that they were housewives ( $n=33$ , 67.67%).

**Table 1:** Demographic Characteristics of the Informants ( $n=30$ )

Characteristics	Category	<i>n</i> (%)
Age Mean 38.77 (SD=5.75)	20-30	8 (26.67%)
	31-40	8 (26.67%)
	41-50	8 (26.67%)
	>50	6 (20%)
Type of family	Nuclear	20 (66.67%)
	Extended	10 (33.33%)
Number of children	1-3	17 (56.66%)
	4-6	8 (26.67%)
	>6	5 (16.67%)
Academic Degree	Illiterate	4 (13.33%)
	School	3 (10%)
	High School	13 (34.33%)
	Diploma	1 (.03%)
	Baccalaureate	8 (26.67%)
	Masters Degree	1 (.03%)
Type of Delivery	Natural	23 (76.67%)
	Surgery	7 (23.33%)
Work	Yes	10 (33.33%)
	No	20 (67.67%)

The four main themes of this study are presented next supported by quotes from the informants own words during the interviews.

### **cultural Patterns of Infant's Bathing**

All mothers gave their deliveries in hospitals and reported that they started bathing their babies just after they were discharged. Approximately half of the mothers bathed in salty water after washing their babies with baby shampoo. The duration of bathing with salty water and the practice of salting differed among them. The 'salty water bathing' expression has been used alternatively with the expression 'salting the infant'. The salting practice was described as:

"During the first day after birth the grandfather of the baby cleaned him firstly with the baby shampoo, then put small amount of salt in a cup of water and salted him specially in the folded area from infant body and the next day they wiped the baby's body with olive oil to cool him because salt was too hot." (P2) The process of salting continued until the baby is 40 days of age and then it was discontinued "The salting was done every other day until 40 days then we gave the baby a regular bath." (P3) Some mothers reported that the duration of salting was limited to the first week of infant's life:

"At the first day after birth I gave the baby a regular bath with water and shampoo, then salted him and at the night wiped his body with olive oil to decrease the effect of salt on his body. I repeated this salting three times during the first week then bathed normally." (P20)

The beliefs about salting were acquired from the older generations of the informants' female relatives or from the grand father of the baby. The main cultural beliefs of salting the infant were related to protecting the babies from nappy rash, to be polite in their speech and to gain respect from people once they are grown:

"The salting protects my baby from nappy rash special in the folded areas and the genitalia." (P20)

The senior mothers (aged more than 56 years) stated the same beliefs with more explanation regarding salting the infant. Those senior mothers explained the importance of salting infants. One mother said:

"Salting the baby is very important as it increases skin thickness so to protect from nappy rash and I salted his tongue to be polite and respected from others." (P27)

In brief, mothers believed that salting practice is beneficial and helps the babies become better, healthy individuals when they grow up. These were the beliefs of mothers leading to the adoption of this practice.

### **The Umbilical Cord Care**

Most of the informants in this study reported that the stumps of their infants dried and separated from the infants' umbilical cord within the first week after delivery. They referred to the stump of the umbilical cord at birth as 'clamp' and the separation process as 'drop down'.

The most common practices among the informants was the application of neomycin powder (an antibiotic) and spreading it over the stump. They referred to it as 'roshoosh' or dispersion, while they were not aware that this powder was in fact an antibiotic. They considered the use of this powder because it would enhance the healing process of infant's umbilicus.

"I put the roshoosh on the umbilical area after the clamp drops down so that it would heal and dry." (P6)

The majority of informants preferred using neomycin powder to dry infants' stumps quickly. Some informants reported that they would wipe the clamp with alcohol and others wipe with salty water.

"For my son I wiped the clamp and the umbilical area with alcohol for a week. It then dried and the clamp dropped alone." (P4)

And another informant said:

"I kept the umbilica dry, and after the clamp dropped alone I put roshoosh and wiped with salty water." (P30)

When asking the senior mothers (age above 56 years) about the umbilical stump care of the infant and the traditional practices, they responded that they used to dry the stump with alcohol until it falls by itself. Then mothers usually put 'kohla', a black powder to the umbilicus or to the site of the stump.

According to Abuidhail (2014) traditional Kohla is a hand-made mixture of ground lead with the powdered stones of olives or dates that is used as a make-up for women and young children. It is usually used as a cosmetic that is applied to the lower eyelid, similar to modern eyeliner, or it is a mixture of ground lead and other ingredients.

One of the mothers said:

"We kept the umbilicus dry and waited until the clamp dropped alone, and then we put Kohla." (P27)

The reported traditional practices related to umbilical stump care included drying with alcohol, spreading of neomycin powder and then after it the stump falls, some mother would apply kohla to the dry umbilicus as a protective measures to promote healing and prevent infections from entering through the umbilicus.

## Swaddling

This practice can be seen in many countries around the world. It is in fact becoming a common practice in the USA as it was found it would promote positive practices, such as minimizing the prevalence of sudden infant's death syndrome as the infant has to be sleeping on the back almost all the times (Oden et al., (2012). Wrapping the infant with a cover over the clothes and then swaddling the body tightly starting from the first day after birth. This practice is the most commonly reported cultural practice in this study. According to the Jordanian culture, swaddling practice can be described by placing the infant in the middle of square, white, cotton piece of cloth which is culturally called 'Qmat' (Abuidhail, 2014; Jarrah & Bond, 2007). The area of Qmat is nearly one meter square. Infant's arms and legs would be extended straight then wrapped with it. Following that, a narrow, long (almost 2 meters long), of Qmat wraps the infant trunk and legs with arms being straightened alongside the trunk. The middle of this cloth was wider (10cm x 5cm) than the two tails. It was observed in the current study that the mother put the wide area of Qmat over the infant's chest at the level of his shoulders, then crossed the two tails of it at the back of the infant, after that crossed them again at the infant's tummy over his extended, adducted arms, and finally circled the tails around his ankles which were in the adduction position. At the end, the infant cannot move the limbs totally, then, infant becomes as one piece. Infant remains swaddled during the day and night. "Infant may not be swaddled for a short period of time of nappy change.

When the informants were asked why they would wrap and swaddle their infants, they gave many cultural beliefs about the advantages of this practice. One reported belief was that swaddling would strengthen and straighten infant's limbs and body. Mothers also used swaddling to keep the baby quiet, which would also promote this behavior when the baby has grown up.

In this respect one of the mothers said:

"I wrapped my baby and tied him up with qmat to make his limbs and body straight and strength." (P17).

In addition, they reported that this practice keeps the baby warm (especially during winter). Furthermore, it makes carrying, holding and feeding the baby much easier.

"Swaddling keeps my son quiet, and that is especially true when he is grown up." (P20)

They reported that swaddling protects the body and helps the baby sleep for longer periods:

"Wrapping and tying makes the child's body straight and strong and helps him to sleep long periods because it prevents his wake-up from the sudden movement of his hand while sleeping." (P20)

However, some of mothers didn't believe in swaddling. They reported that it has some harmful effects on the baby. One of the mothers said that:

"Tying the baby limited his movement and his freedom to move." (P18)

Another mother also said that:

"The baby is already warm and wrapping with tying made the baby sweating and had bad odor." (P21)

The period of tying often varies between the mothers; it may last as long as one year. There was no specific period, but the general impression reported by the mothers indicates that they swaddled during the first year of infant age:

"I tied my son 6 months then he refused it. So, I decided to stop doing it." (P12)

Another mother said that:

"I wrapped and tied all of my babies during the first four months, and then only wrapped and tied the abdomen and legs at night for the remaining of the first year of age." (P27)

The participant, who applied swaddling did not report any case of developmental dysplasia of the hip. Although some mothers reported that swaddling has negative outcomes, the majority reported practicing swaddling in their babies as it promotes a number of benefits, including straightening legs and arms, bringing warmth, and prolonging sleeping hours, especially during the night.

## Jaundice

Most of the participants in this study used traditional methods to deal with their infants, who had jaundice, rather than seeking medical advice and treatment, especially during the first week of life.

Mothers whose infants had jaundice reported using regular light at home. Sugared water, sun exposure, garlic necklaces, and wrapping the baby's body with a boiled garlic and olive oil were other techniques used to treat jaundice"

"In order to treat jaundice I exposed my son to sun and a room light, dressed him a garlic necklace and gave him water sweetened with sugar." (P8)

Although these practices are not widely reported in the literature, they were described by some mothers as common practices, which helped the baby become better. In this respect, one informant said:



"When I observed a yellowish color in the forehead and eyes of my son in the first week of his life I gave him a small amount of sweetened water with sugar to drink three times a day for three days, and exposed him to light at home. Then I boiled garlic with olive oil and wrapped his body after it was cold for three days." (P4)

Some mothers reported harmful traditions, such as exposing the baby to sun light until the body become hot. One of the informants said:

"I exposed my jaundiced baby to sun light during the morning when it was hot." (P20)

Generally, some traditional practices reported by informants in this study are commonly reported in literature, including swaddling. There were, on the other hand, other rarely reported practices, such as the use of alcohol when caring for the umbilical stump and the use of garlic for babies with jaundice. The next chapter discusses findings in this study and compare them with the related literature.

## **Discussion**

Traditional practices adopted by Jordanian mothers in rural areas when caring for their infants has been the topic investigated in this study. The findings indicated that mothers performed different practices, some of which are reported in the literature. However, other practices have not been widely reported in international literature. Perhaps these practices are related to the domestic Jordanian culture.

This section presents a discussion with comparisons to related literature concerning the traditional practices of mothers when caring their babies. In addition, suggested implications are presented to promote healthy practices and improve infant's care in different regions within Jordan. In addition, future research required to improve our knowledge is suggested in this chapter.

### **Traditional Practices are Widely Adopted In Jordanian Rural Areas**

Findings in this study indicated that regardless of the mothers' academic background, experience with infant's care or age, they are still adopting traditional practices as acceptable beliefs. This is consistent with Abuidhail (2014), who stated that although all mothers were well-educated their dependence on cultural beliefs and practices are still dominating many aspects of infant's care. However, Khassawneh et al., (2008) concluded that mothers with a low level of education preferred to adopt the traditional practices more often compared with the high level education mothers. Assumptions based on this finding would imply that mothers would accept these practices without seeking the benefits as reflected in the evidence from research and advices by health care professionals.

### **The practice of infants' bathing**

The beliefs about salting were acquired from the older generations of the mothers including relatives and in-laws. Mothers in this study gave bath to their babies immediately after being discharged from the hospital. Abuidhail (2014) said that mothers usually give bath to their infants within a week or more after discharge. Similarly, Grover and Chhabra (2012) in Vietnam reported that mothers' practice regarding bathing was divided into three categories; 34% of mothers gave a bath immediately after birth, 34% after one week of births and 32% within one week of birth (Grover and Chhabra, 2012). Delay of bathing in this case could not be justified by the mothers and still the source of this practice is the older women.

The majority of mothers in this study practised salting with their babies. As well, Jarrah and Bonds (2007) reported performing this practice by almost all mothers in their study. Abuidhail (2014) revealed that all informants salted their babies during the first week for three times, then normal bathing took place afterward. In this study, some informants stated that they practised salting during the first 40 days; thus, increasing the effect and the harmful effect of salting. Further, the cultural practice of salting was found in Turkey, but with a different underlying belief. The purpose for Turkish mothers was to improve baby's ability to speak well and to become rich later in their lives (Baser et al., 2010).

Although normal saline 0.9% (a mixture of salt and water) is among the most frequently used solution for wound cleansing due to its property as an isotonic solution which does not usually affect the normal healing process, damage tissue, cause allergies or alter the normal bacterial flora of the skin, it has not been recommended for bathing the new-born infants (Queirós et al., 2013). On the contrary, mothers in this study reported mixing a hypertonic solution of water and salt, which contains more salt than normal saline, increasing osmolarity of the solution and making it even more unsafe. This hypertonic solution could cause dryness, cracking of the infant's skin, may interfere with skin normal flora causing higher exposure to infections, hyponatremia and dehydration (Abuidhail, 2014; Jarrah & Bond, 2007). It was clear that mothers did not have this information on what bathing using a hypertonic solution could cause to their infants. Therefore, this practice has been reported by nearly all informants.

## Umbilical Cord Care

The umbilical cord area supports the growth of some harmless or beneficial microorganisms (i.e., *commensals*) whereas others are harmful (e.g., *Clostridium tetani*) (Karumbi et al., 2013). Sources of these bacteria include the mother's birth canal, the environment of delivery and the hands of the person assisting with the delivery (Karumbi, et al., 2013). Cord infection may be localized, omphalitis, which can be seen as redness with the presence of pus at the cord (Soofi et al., 2012). However, this infection may infiltrate into the blood stream causing a systemic infection, such neonatal sepsis (Karumbi et al., 2013).

Therefore, care of the cord is very important to prevent any infection and allows the separation of the stump without complications (Abuidhail, 2014). Internationally, the World Health Organization (2013) has advocated for the use of dry umbilical cord care in order to keep the cord clean without the application of any material by exposing it to air or by covering it by a clean cloth that is not tight, and if it becomes soiled it is only cleaned with water. Most of the informants in this study stated that the stump separated after one week as they kept the cord dry alone without any application. However, they also reported a variety of ways to cleansing the area after the stump had separated; the majority used neomycin powder, some cleaned with alcohol and salty water, and only the old age mothers reported the application of Kohla to the umbilicus area and a coin. Similarly, this result has been reported by Jarrah and Bond (2006) and Abuidhail (2014). Khassawneh et al., (2008) also stated that only 39% of mothers used antibiotics.

Other studies discussed the effect of these applications on infant's health, and indicated that alcohol decreased the time of cord separation (Ahmadpour-Kacho et al., 2006; Whitmore and Marie, 2010). Abuidhail (2014) emphasized the harmful effect of Kohla on the infant's health.

However, some studies agreed with using salt in umbilical cord cleansing, such as Hossain et al. (2010), which showed that use of common salt in treating umbilical granuloma, a common inflammatory reaction which occurs during the falling of umbilicus, is simple, cost effective, curative and safe. They also said that salt does not have complications and can be treated by parents. They added that this procedure is not painful to the baby as the area contains no nerves and has no feeling. As well common salt is not an irritant to tissues; it has no burning effect to normal tissues (Hossain et al., 2010). This was the only study that supported the use of salt on the umbilical stump.

## Swaddling

Swaddling is almost universal child-care practice before the 18<sup>th</sup> century as it is still practised in many countries around the world, such as the United Kingdom, the United States of America, and certain parts of the Middle East (Van Sleuwen et al., 2007). According to Oden et al., (2012) approximately 90% of infants in the United States are swaddled during the first few months of life. However, swaddling practice differs in the western countries and the united state of America from the traditional swaddling that it involves wrapping or bundling babies in cloth blankets with the arms restrained to dampen the startle response and provide a sense of comfort. According to Van Sleuwen et al.(2007), the proper swaddling method restrains the upper extremities but allow hip flexion-abduction and knee flexion. And this proper swaddling had many benefits, such as swaddled infants arouse less and sleep longer (Mahan and Kassar, 2008; Meyer and Erler, 2011; Richardson et al., 2010; Savage, 2006; Van Sleuwen et al., 2007; Yalmaz, 2012). It was also reported to have a positive impact on the psychomotor development (Richardson et al., 2010). According to Van Sleuwen et al., (2007), swaddling can decrease infant's crying and can be helpful in regulating temperature but may cause excessive body temperture when misapplied.

But when swaddling involves wrapping infants with the legs straight and the hips and knees extended, as reported by mothers in this study, it should be discouraged because it increases the risk of developmental dysplasia of the hip and hip dislocation (Dogruel et al., 2008; Kutlu and Civi, 2007). Wang et al. (2012) attempted to reproduce traditional swaddling by wrapping both hind limbs together with a soft wrap; thus, leading to adduction as well as hip and knee extension. The authors studied three different time periods of swaddling: the first five days after birth, the second five days after birth, and the first ten days after birth. The authors reported that hip dislocation occurred predominantly in the two groups swaddled at the time of birth. Further, swaddling may cause vitamin D deficiency and lung infections because it limits the beneficial effects of the sunlight and the tightness of swaddling affect on the normal expansion of the lung (Van Sleuwen et al., 2007).

In Jordan, Khassawneh et al. (2008) stated that no statistical difference in the rate of developmental dislocation of the hip between the infant who were swaddled and those who were not.

In this study, less than half of the mothers believed in swaddling and its effect on the development and the risk of developmental dysplasia of the hip, and no one reported that her infant developed developmental dysplasia of the hip.

Similar results have been reported in studies conducted in Jordan and in other countries, which stated that most participants swaddled their newborn from the first day after delivery, and believed that swaddling did not harm the infant (Abuidhail, 2014; Jarrah and Bond, 2007; Khassawneh et al., 2008; Van Sleuwen et al., 2007; Yalmaz et al., 2012).

### **Traditional Management Of Jaundice In Infants**

One study found on prevalence of Jaundice and its traditional treatment in Jordan conducted by Khassawneh et al. (2008) and had similar results to this study. Khassawneh et al. (2008) found that most of the participants did not seek medical advice and the main practice was exposure to sun light and the home light, the use of sweetened water with sugar, and the last one was to put a garlic necklace around the neck of the infant. In the other cultures, such as in Turkey, mothers gave bath to infants in water with gold, putting on yellow clothes, covering the baby with a yellow gauze, exposing to yellow light, keeping the baby warm, drink urine and putting the nails in bathing water (Bolukbas et al., 2009; Caliskan and Bayat, 2011; Celik et al., 2012; Cetinkaya et al., 2008).

Some of these traditional practices are not useful, such as wearing a garlic necklace, and some of them could cause a harmful effect, such as giving the infant sugared water which may cause weight loss and increase dehydration (Boskahadi et al., 2011). In addition, the use of direct sunlight might increase the high risks of sunburn, dehydration, and long-term harm to the skin. American Cancer Society (2015) reported that sunlight exposure increases the risk of the development of melanoma (skin cancer) later in infant's life.

Jaundice is the early significant sign of the hyperbilirubinemia, and the use of these traditional practices could delay seeking medical health. Therefore, severe neonatal jaundice would progress to acute bilirubin encephalopathy and kernicterus, which may lead to death if untreated properly (Slusher et al., 2013). So, we need to increase public awareness regarding the harmful potential of untested traditional practices to manage jaundice.

### **Conclusion**

It is recommended that health professional efforts be gathered to correct the traditional practices concerning infant care in Rural areas in Jordan. This can be done through the adoption of a national policy that aims to raise awareness of the potential harmful influence some traditional practices could have on the baby. In addition, it is recommended that efforts be directed to improve knowledge of future mothers and fathers on the acceptable care practices. Therefore, both school and university students can be addressed by raise of awareness campaigns conducted by health professionals, politician, community leaders and preachers sponsored by the Ministry of Health and the Non governmental Organizations (NGOs) of concern with healthy childhood and maternal life.

### **Acknowledgment**

The Authors would like to thank all of the participants without whom there would be no study.

### **References**

1. Abuidhail, J. (2014). Rural Jordanian Mothers Beliefs, Knowledge and Practices of Postnatal Care. Quality in Primary Care. 222: 85-293.
2. Ahmadpour-Kacho, M., Zahedpasha, Y., Hajian, K., Javadi G., and Talebian, H. (2006). The effect of topical application of human milk, ethyl alcohol 96%, and silver sulfadiazine on umbilical cord separation time in newborn infants. Archives of Iranian Medicine. 9: 33-38.
3. Aliefendioglu, D., Hizel, S., Misirlioglu, E. D., Sanli, C., Albayrak, M., and Oktay, A. (2009). Traditional Child Care Procedures in an Anatolian City. Gazi Medical Journal. 20: 17-20.
4. American Cancer Society, 2015, Skin Cancer –Melanoma, Retrieved from <http://www.Cancer.org/cancer/skin> cancer - melanoma.
5. Baser, A., Topcu, S., Coskun, A., Erdem, N., Geliskan, R., and Ozer, D. (2010). Traditional Child Care Practices Among Mothers With Infants Less Than 1 Year Old. DeuhyoED. 3: 137-145.
6. Bolukbas, N., Erbil, N., Altunbas, H., and Arslan, Z. (2009). Traditional Practices about Child Care of the Mothers Who Owner 0-12 month Baby. International Journal of Human Sciences. 6: 164-176.
7. Boskabadi, H., Maamouri, G., and Mafinejad, S. (2011). The Effect of Traditional Remedies (Camels Thorn, Flixweed and Sugar Water) on Idiopathic Neonatal Jaundice. Iranian Journal of Pediatrics. 21: 325-330.



8. Caliskan,Z.,and Bayat,M.(2011).Baby Care Applications of Mothers and the Acting Factors of these Applications :a sample on Kapadokya.Anadola Hemsirelik Ve Saglik Bilmleri Dergisi.14:23-30.
9. Capik, C .,and Capik, A.(2014) .Traditional Infant Care Practices of Mothers With 6-12 Month Old Infant in Turkey.Indian Journal of traditional Knowledge.13: 266-274.
10. Celik,A.S.,Capik,A.,and Engin,R.(2012).Determining the Traditional Practices during Pregnancy and Post Partum Period in Erzurum. Anadola Hemsirelik Ve Saglik Bilmleri Dergisi.15: 262-267.
11. Cetinkaya,A.,Ozmen,D.,and Cambaz,S.(2008).Trasditional Practices Associated with Infant Health among the 15-49 Aged Women who have Children in Manisa .Cum Huriyat Universites Hemsirelik Yuksekokulu Derdisi.12:39-46.
12. Creswell, J.W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Los Angeles: Sage.
13. Dogruel,H.,Atalar,H.,Yavuz,O.Y.,and Sayli,U.(2008).Clinical Examination Versus Ultrasonography in detectingh Development Dysplasia of the Hip.International Orthopaedics. 32:415-419.
14. Grover,P.,Chhabra,P.(2012).Neonatal Care Practices in Urban Villages.Indian Medical Gazette.32-38.
15. Herlihy,J.M.,Shalikh,A.,Mazimba,A.,Gane,N.,Grogan,C.,Mpamba,C.,etal.|(2013).Local Perceptions ,Cultural Beliefs and Practices that Shape Umbilical Cord Care : Q ualitative Study in Southern Province ,Zambia..Plos One.8: e79191.
16. Hossain, A.K.M., Hasan, G.Z., and Islam, K.M. (2010). Therapeutic Effect of Common Salt (Table/ Cooking Salt) on Umbilical Granuloma in Infants. *Child Health*, 34 : 99-102.
17. Jarrah,S.,and Bond,A.E.(2007).Jordanian Women's Postpartum Beliefs: an Exploratory Study . International Journal of Nursing Practice 13:289-295.
18. Karumbi,J.,Multaku,M.,Aluvaala,J.,English ,M., and Opiyo,N.(2013).Topical Umbilical Cord Care for Prevention of Infection and Neonatal Mortality The Pediatric Infectious Disease Journal. 32:78-83.
19. Khassawneh ,M.,Khader,Y.,Amarin,Z.,Alsaad,S.,Alkafajei,A. (2008) Traditional Practices for Newborns Care: The North of Jordan Perspective .Jordam medical Journal. 42 : 1-9.
20. Kutlu,R.,& Civi ,S.(2007).The Importance of Diagnosing Development al Dysplasia of the Hip in Family .Turk Aile Dergasi .11:140-142.
21. Leininger,M.M.(2006).Ethnonursing Research Method and Enablers.In M.M Lieninger & M.R.Mcfarland,Culture Case Diversity and Universality :AWorld wide Nursing Theory (2end ed ,pp.34-82)Sudbury,MA:Jones and Bartlett.
22. Mahan, S.T., and Kasser, J.R. (2008). Does swaddling influence developmental dysplasia of the hip?. *Pediatrics*, 121: 177-178.
23. Meyer, L.E., and Erler ,T.(2011). Swaddling: a traditional care method rediscovered . *World Journal of Pediatrics*. 7: 155-160.
24. Oden, R.P., Powell, C., Sims, A., Weisman, J., Joyner, B.L. and Moon, R.Y. (2012). Swaddling: Will It Get Babies Onto Their Backs for Sleep?. *Clinical Pediatrics*. 51: 254-259.
25. Polit, D.E. and Beck, C.T. (2008). *Nursing Research: Generating and Assessing Evidence for Nursing Practice* (8th ed.). Philadelphia, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins.
26. Queirós ,P.,Santos ,E.,Apostolo,J., and Cardoso,D. 2013).The effectiveness of cleansing solutions for wound treatment: a systematic review protocol. The Joanna Briggs Institute Library. 12: 121-151.
27. Rashma, R., and Sujatha,R.(2014).Cultural Practices and Beliefs on Newborn Care Among Mothers in a Selected Hospital of Mangalore. Taluk.Nitte University Journal of Health Science .4:21-26.
28. Richardson, H.L., Walker, A.M., and Horne, R.S.(2010), Influence of swaddling experience on spontaneous arousal patterns and autonomic control in sleeping infants. *Journal of Pediatric*. 157: 85-91.
29. Savage, J. (2006). Ethnographic evidence: The value of applied ethnography in healthcare. *Journal of Research in Nursing*. 11: 383-393.
30. Soofi, S., Cousens ,S., Imdad, A.,Bhutto,N.,Ali,N., and Bhutta,Z.A.(2012) .Topical application of chlorhexidine to neonatal umbilicalcords for prevention of omphalitis and neonatal mortality in a rural district of Pakistan: acommunity-based, cluster-randomised trial. *The Lancet*. 17: 1029–1036.
31. Van Sleuwen, B.E., Engelberts, A.C., Boere-Boonekamp, M.M., Kuis, W., Schulpen, T.W. and L'Hoir, M.P. (2007). Swaddling: A systematic review. *Pediatrics*, 120:, e1097- e1106.
32. Wang, Weaver, K., and Olson, J.K. (2006). Understanding paradigms used for nursing research. *Journal of Advanced Nursing*. 53: 459-469.
33. World Health Organization. (2013).Recommendation on Postnatal Care of the Mothers and Newborns.
34. Yalcin,H.,(2012).Traditional Practice related to Pregnancy ,the Natal and Postnatal Period and Baby Care (Karaman Sample).Cocuk Sagligi Ve Hastaliklari Dergisi.55:19-31.
35. Yalmaz,A.E.(2012).A perspective from the practice of swaddling by Turkish mothers. *Hippokratia*, 16:130-136.